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Response to Office Action Dated 04/17/2006

REMARKS

1 A review of the claims indicates that:

2 A) Claims 25—39 are currently amended.

3 B) Claims 40—44 are previously presented.

4 In view of the following remarks, Applicant respectfully requests
5 reconsideration of the rejected claims and withdrawal of the rejections.

35 U.S.C. §112

7 The Patent Office raised a Section 112 rejection to several claims. In
8 particular, the Patent Office suggests that “as many elements as will fit per row”
9 renders the claims indefinite. However, the Applicant has amended the claims to
10 recite “color ramps” rather than “elements”. The Specification discusses how the
11 four basic elements are the color ramps for K, Y, M and C. See for one example,
12 page 11 at lines 25—30. In general, the Specification disclosed that elements are
13 color ramps and that sub-elements are color patches. (See for one example, page
14 12, lines 16—18 and page 4, lines 25—27 and page 11, lines 25—30 and other
15 locations.)

16 Thus, it is clear that the elements are the color ramps. Moreover, only a
17 limited number of color ramps will fit on any row of the color test pattern, since
18 the color test pattern is printed on media of a finite width, and the color ramps can
19 not be made infinitely small. The Office’s argument that any number can be
20 divided by any number is hard to follow, since what we are looking at is a print
21 media of finite width, on which only a certain number of color ramps will fit. The
22 number that will fit is dependent on the width of the media and the size of the
23 ramps. Accordingly, statements such as including “as many color ramps as will fit
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per row of the test pattern" clearly indicates that no spaces large enough to accommodate an additional color ramp are to be left in a row of the test pattern.

Traversal of the §103 Rejections

Claims 25—27, 29—36 and 38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,975,418, hereinafter "Ohta" in view of U.S. Pat. No. 5,729,555, hereinafter "Ichikawa". In response, the Applicant respectfully traverses the rejection.

Claim 25 recites a processor-implemented method for printing a test pattern, comprising:

- determining a size of a print medium upon which the test pattern is to be printed;
- configuring the test pattern to include as many color ramps as will fit per row based on the size of the print medium, wherein height of the test pattern is increased in response to availability of color ramps beyond which will fit in a row on the print medium, and wherein the color ramps are arrayed horizontally along a width of the print medium when the size of the print medium allows, and are arrayed vertically when the size of the print medium requires; and
- printing the test pattern on the print medium.

Thus, the Applicant has amended the claim to recite that the color ramps may be arrayed horizontally (see, for example, Fig. 11) when the size of the print medium allows, and that the color ramps may be arrayed vertically when the size of the print medium requires (see, for example, Fig. 6). Thus, the Applicant has amended the claim to recite a test pattern wherein a plurality of color ramps are arrayed horizontally if the media is wide enough to allow it. See also, page 3, lines 10—17.

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1 The Applicant observes that the Ohta reference does not disclose, "wherein
2 the color ramps are arrayed horizontally along a width of the print medium when
3 the size of the print medium allows, and are arrayed vertically when the size of the
4 print medium requires". That is, Ohta does not disclose the flexibility of arraying
5 the color ramps horizontally (e.g. the Applicant's Fig. 11), and instead arrays color
6 ramps in a set pattern that may result in media waste (e.g. the Applicant's Fig. 10).
7 For example, Ohta discloses a test pattern (see Ohta's Figs. 3 and 8) wherein a
8 fixed number of rows (four) are provided.

9 Additionally, Ichikawa, which was cited by the Patent Office as an example
10 of "determining a size of a print medium", does not teach or suggest "wherein the
11 color ramps are arrayed horizontally along a width of the print medium when the
12 size of the print medium allows, and are arrayed vertically when the size of the
13 print medium requires".

14 Moreover, the Patent Office has not asserted that Ohta teaches or suggests
15 the recitations of Claim 25, as amended.

16 Accordingly, the Applicant respectfully requests that the Patent Office
17 remove the Section 103 rejection to Claim 25.

18 Claims 26—32 depend from Claim 25 and are allowable as depending
19 from an allowable base claim, as well as for their recitation of elements not seen in
20 the prior art of record. These claims are also allowable for their own recited
21 features that, in combination with those recited in Claim 25, are neither taught nor
22 suggested in references of record, either singly or in combination with one
23 another.
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Support for the amendments in these claims is easily found throughout the application. Re Claim 26, clearly color ramps comprise color patches, see, e.g. page 12, lines 4—14, and other locations. Re Claim 28, numbers and sizes of color patches are disclosed at page 4, lines 25—30 and other locations. Re Claim 29, the parameters are discussed at page 14, and other locations. Re Claim 31, the color ramps are a version of elements, and are discussed at page 11, lines 25—30.

Claim 33 recites a printing apparatus configured for printing a test pattern, comprising comprising:

- a print engine configured to print the test pattern according to instructions for;
 - determining a width of a print medium;
 - configuring the test pattern to include as many color ramps as will fit per row of the test pattern, based on the width of the print medium and size of the color ramps, **wherein the configuring is performed using parameters, comprising;**
 - a number of color ramps within the test pattern;
 - a number of color patches within each color ramp;
 - a height of the color patches; and
 - a width of the color patches; and
 - **adjusting the parameters, wherein the adjustment arrays the color ramps horizontally along the width of the print medium when the size of the print medium allows, and wherein the color ramps are arrayed vertically when the size of the print medium requires;**
- printing the test pattern on the print medium based on the adjusted parameters.

Thus, the Applicant has amended the claim to recite that the configuring of the test pattern is done in part using parameters. Additionally, specific parameters used in the configuring process are recited, including number of color ramps, number of color patches per ramp, and color patch height and width. A discussion

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1 of the parameters and parameter adjustment is seen in the Applicant's
2 specification at page 14 and in other locations.

3 The Ohta and Ichikawa references fail to disclose the use of configuring a
4 test pattern using parameters generally, and the recited parameters specifically.

5 Moreover, the Patent Office has not asserted that Ohta teaches or suggests
6 the recitations of Claim 33, as amended.

7 Additionally, the Applicant has amended the claim to recite, "adjusting the
8 parameters, wherein the adjustment arrays the color ramps horizontally along the
9 width of the print medium when the size of the print medium allows". A
10 discussion of the parameters is seen in the Applicant's specification at page 14 and
11 in other locations.

12 The Ohta and Ichikawa references fail to disclose adjustment of such
13 parameters to result in arraying of the color ramps in a horizontal configuration
14 (e.g. as seen in the Applicant's Fig. 11). .

15 Moreover, the Patent Office has not asserted that Ohta teaches or suggests
16 the recitations of Claim 33, as amended.

17 Accordingly, the Applicant respectfully requests that the Patent Office
18 remove the Section 103 rejection to Claim 33.

19 Claims 34—38 depend from Claim 33 and are allowable as depending
20 from an allowable base claim, as well as for their recitation of elements not seen in
21 the prior art of record. These claims are also allowable for their own recited
22 features that, in combination with those recited in Claim 33, are neither taught nor
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1 suggested in references of record, either singly or in combination with one
2 another.

3 Support for the amendments in these claims is easily found throughout the
4 application. Re Claim 34, this matter is discussed at page 7, lines 4—12 and other
5 locations. Re Claim 35, Fig. 12 and other locations discusses the order of various
6 steps. Re Claim 36, a lower limit is discussed at page 4, lines 30—31.

7 Claim 39 recites a printing apparatus configured for printing a test pattern,
8 comprising:

- 9 • means for measuring a size of a print medium upon which the test
10 pattern is to be printed;
- 11 • means for configuring the test pattern to include as many color
12 ramps as will fit per row based on the size of the print media and
13 moving color ramps which will not fit on a first row into a second
14 row wherein the moved color ramp will fit in its entirety, wherein
15 the color ramps are arrayed horizontally along a width of the
16 print medium when the size of the print medium allows, and
17 wherein the color ramps are arrayed vertically when the size of the
18 print medium require, and wherein size and number of color
19 patches is adjusted to completely fill a row in the test pattern;
20 and
- 21 • means for printing the test pattern on the print medium.

22 Claim 39 has been amended to recite, "wherein the color ramps are arrayed
23 horizontally along a width of the print medium when the size of the print medium
24 allows". Accordingly, Claim 39 is allowable for at least the reasons that Claim 25
25 is allowable, and the Applicant incorporates the remarks associated with Claim 25
herein.

26 Claim 39 has also been amended to recite, "wherein size and number of
27 color patches is adjusted to completely fill a row in the test pattern". Support for

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1 this is seen at page 5, lines 4—12 and other locations. Color patches are a
2 preferred embodiment of sub-elements, as seen at page 4, lines 25—27.

3 The Applicant observes that the Ohta and Ichikawa references do not teach
4 or suggest adjusting a number of color patches. Instead, the references disclose a
5 fixed number of color patches.

6 Moreover, the Patent Office has not asserted that Ohta teaches or suggests
7 the recitations of Claim 39, as amended.

8 Accordingly, the Applicant respectfully requests that the Patent Office
9 remove the Section 103 rejection to Claim 39.

10 Claims 40—44 depend from Claim 39 and are allowable as depending
11 from an allowable base claim, as well as for their recitation of elements not seen in
12 the prior art of record. These claims are also allowable for their own recited
13 features that, in combination with those recited in Claim 39, are neither taught nor
14 suggested in references of record, either singly or in combination with one
15 another.
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Conclusion

The Applicant submits that all of the claims are in condition for allowance and respectfully requests that a Notice of Allowability be issued. If the Office's next anticipated action is not the issuance of a Notice of Allowability, the Applicant respectfully requests that the undersigned attorney be contacted to schedule an interview.

In particular, the Applicant requests that the Examiner call the Applicant's attorney to discuss the possibility of an Examiner's amendment or a Draft Amendment by the Applicant to amend the application to put it into condition for allowance.

Respectfully Submitted,

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